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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,108	10/03/2003	Alex B. Djenguerian	005510.P078	2240

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EXAMINER

RUTLAND WALLIS, MICHAEL

ART UNIT	PAPER NUMBER
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2835

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/679,108

Applicant(s)

DJENGUERIAN ET AL.

Examiner

Michael Rutland-Wallis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/03/2003 4/8/05
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –
((b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 4, 7-9 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Om'Mani et al. (U.S. Pat. No. 6,603,331).

With respect to claims 1, 8-9 and 11 Om'Mani teaches An integrated circuit (Fig. 2 item 200), comprising: a functional circuit (e.g. Fig. 2 item 105) coupled to a plurality of terminals (Fig. 2 items 115) including first, second and third terminals of the integrated circuit, wherein the first terminal is adapted to withstand a first maximum voltage relative to the second terminal, wherein the third terminal is adapted to withstand a second maximum voltage relative to the second terminal, wherein the second maximum voltage is substantially greater than the first maximum voltage; a detector circuit (Fig. 2 item 205 see column 3 lines 34-36) coupled to detect a voltage at the third terminal, the detector circuit having a first state (where transistor item 210 is open) when the voltage at the third terminal is less than a first threshold, the detector having a second state (where transistor item 210 is closed) when the voltage on the third terminal is greater than a second threshold; and a selector circuit (Fig. 2 item 140)

coupled to the detector circuit and the functional circuit, the selector circuit to select one of at least two distinct modes (verify mode see column 4 line 38 and claim 1 operational mode and test mode) of operation for the functional circuit in response to the plurality of terminals.

With respect to claim 2 Om'Mani teaches the selector circuit is adapted to hold (see memory cells item 110) the second state of the detector circuit after the detector circuit reverts to the first state.

With respect to claim 4 Om'Mani teaches the first terminal is not coupled to any circuitry external to the integrated circuit (see Fig. 1 or 2).

With respect to claim 7 Om'Mani teaches the first terminal is one of a power supply terminal, a control terminal, and a functional terminal for the integrated circuit. See column 3 lines 1-10 and the terminal connected to item 205 allows the terminals to be used for above mentioned operations see column 3 lines 29-41.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Om'Mani et al. (U.S. Pat. No. 6,603,331).

With respect to claim 3 Om'Mani teaches the selector circuit comprises memory cells. Om'Mani does teach the use of latch circuitry. It would have been obvious to one of ordinary skill in the art at the time of the invention to use latch circuitry as the memory cells in order to quickly store data or test signal information.

Claim 5-6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Om'Mani et al. (U.S. Pat. No. 6,603,331) in view of Balakrishnan (U.S. Pat. No. 5,313,381).

With respect to claim 5 Om'Mani teaches the device of claim 1 and while the examiner holds it the third terminal of Om'Mani would be coupled to a switching power supply. Om'Mani is silent on the type of supply coupled to the third terminal. Balakrishnan teaches the use of a switching power supply coupled to the similar terminal to that of the third terminal. It would have been obvious to one of ordinary skill in the art at the time of the invention to couple a switching power supply to the third terminal in order to supply voltage signals of varying voltages to the third terminal if it is held by applicant this is not the operation of Om'Mani.

With respect to claim 6 Om'Mani teaches the device of claim 1 and while Om'Mani uses steering logic Om'Mani does not teach the use of controller in a switching power supply. Balakrishnan teaches the use of a controller in a switching power supply. It would have been obvious to one of ordinary skill in the art at the time of

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the invention to use a controller in a switching power supply in order to control when high voltage signals would be transmitted to alter the mode of operation of the device.

Claims 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Om'Mani et al. (U.S. Pat. No. 6,603,331) in view of Balakrishnan et al. (U.S. Pat. No. 6,388,853).

With respect to claim 10 Om'Mani teaches the use of several mode of operation, but does not teach a trimming mode of operation to one of the modes (verify mode see column 4 line 38 and claim 1 operational mode and test mode). Balakrishnan teaches the use of a trimming mode. It would have been obvious to one of ordinary skill in the art at the time of the invention to include the use of a trimming mode in Om'Mani in order to adjust and test operation parameters.

With respect to claim 12 Om'Mani teaches the device of claim 1 but does not teach the first and second thresholds depend on the voltage applied to the first terminal. Balakrishnan teaches a similar dependency of temperature thresholds, where the first and second thresholds depend on the temperature applied first see claim 6 of Balakrishnan. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the similar logic and configuration in Om'Mani to connect the terminals so the first and second threshold depend on voltage applied to the first terminal.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Om'Mani et al. (U.S. Pat. No. 6,603,331) in view of Hull et al. (U.S. Pat. No. 6,407,581).

With respect to claim 13 Om'Mani teaches the use of a transmitter circuit item 145, which receives a high voltage signal and functions to control the high voltage signal from other components of the chip. Om'Mani does teach the use of a high voltage buffer circuit. Hull teaches the use of a high voltage buffer circuit (item 75). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the high voltage buffer protect components and enable more reliable communication of signals so the device only enters other modes when the proper high voltage has been applied.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Om'Mani et al. (U.S. Pat. No. 6,603,331) in view of Hull et al. (U.S. Pat. No. 6,407,581) as applied to claim 13 above, and further in view of (U.S. Pat. No. 5,313,381).

With respect to claim 14 Om'Mani as modified by Hull teach the device of claim 13 but do not teach a voltage regulator circuit coupled to the first terminal, the high voltage buffer circuit and the functional circuit. Balakrishnan teaches a voltage regulator circuit coupled to the function circuitry. It would have been obvious to one of ordinary skill in the art at the time of the invention to include the use of a high voltage regulator in design of Om'Mani as modified by Hull in order to assure the in coming voltage is not damaging to the device.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Meli (U.S. Pat. No. 6,657,451) teaches an IC where an

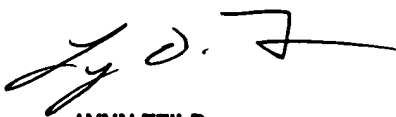
operational mode and test mode is selected based on a particular voltage, Ware et al. (U.S. Pub. No. 20041083559) teaches an IC system where voltage signals are used to enter a test mode.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Rutland-Wallis whose telephone number is 571-272-5921. The examiner can normally be reached on Monday-Thursday 7:30AM-6:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn D. Feild can be reached on 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MRW



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